FHWA REGION NO	STATE	FED. AID PROJ. NO	SHEET NO.	TOTAL SHEETS
3	MD.	SEE TITLE SHEET		

Intersection Operation

The existing cabinet and controller are to be utilized. The phasing is to be modified to a NEMA five phase, semi-traffic-actuated mode. There will be an exclusive/permissive U-turn for the northbound movement of MD 355 included. The through movements for MD 355 will operate concurrently and have a concurrent pedestrian phase across the east leg of the intersection. The Travis Avenue movements will operate alone and have an actuated pedestrian phase across the north leg of the intersection.

Construction Details

A. Use existing handhole.

B. Install 1 in. liquid tight, non-metallic conduit for loop detector sleeve.

C. Install 6 ft. x 30 ft. quadrupole type vehicle loop detector (2-4-2 turns).

D. Install 6 ft. x 6 ft. vehicle loop detector (3 turns).

E. Use existing conduit.

F. Use existing strain pole. Install pedestrian signal head and pedestrian sign.

G. Use existing strain pole. Install pedestrian signal heads, pedestrian pushbutton, and pedestrian signs.

H. Use existing span wire.

J. Use existing span wire, relocate existing signal heads, and sign. Install signs as shown.

K. Install 12 in. preformed white pavement marking for pedestrian crossing.

L. Install 24 in. preformed white pavement marking for stop line.

M. Existing cabinet/controller are to be utilized.

N. Use existing handhole and splice new loopwire to the existing 2-conductor aluminum shielded cable.

O. Use existing loop detector sleeve.

P. Use existing strain pole. Install pedestrian signal head, pedestrian pushbutton, and pedestrian sign.

Q. Use existing span wire, relocate existing signal heads and install new signs as shown.

Equipment List "A"

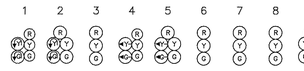
Equipment to be supplied by the SHA.

Quantity	Unit	Description
1	EA	12 in., two-way, two section (Symbolic WK, DW) adjustable pedestrian signal head - pole mount.
2	EA	12 in., one-way, two section (Symbolic WK, DW) adjustable pedestrian signal head - pole mount.
2	EA	Pedestrian pushbutton assembly.
1	EA	8 in./12 in., one-way, five section (8 in. R,Y,G / 12 in. YA,GA) adjustable traffic signal head - span wire mount.
1	EA	12 in., one-way, five section (R,Y,YA,G,GA) adjustable traffic signal head - span wire mount.
69	SF	Sheet aluminum signing. [To consist of four 9 in. x 12 in. R10-3C signs for pole mounting, and one 30 in. x 36 in. R3-5(U), one 36 in. x 42 in. R10-12(U), and six 16 in. x Var. D3-2 signs for span wire mounting.]

Equipment List "B"

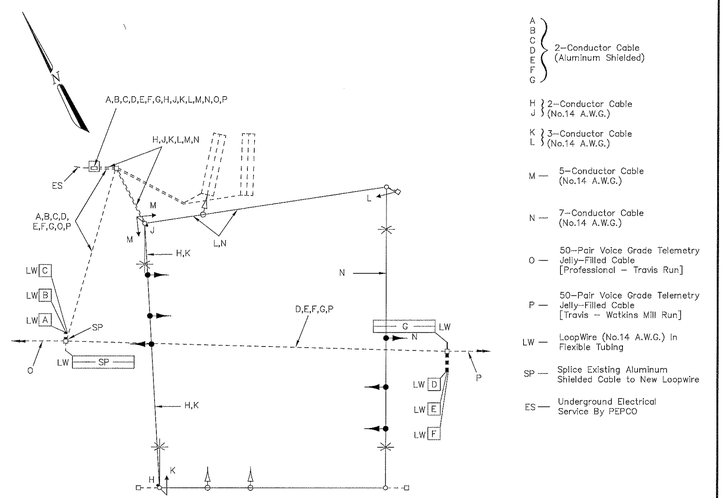
Equipment to be furnished and/or installed by the Contractor.

Quantity	Unit	Description
575	LF	12 in. preformed white pavement marking for pedestrian crossing.
125	LF	24 in. preformed white pavement marking for stop line.
600	LF	Sawcut for signal loop detector.
1600	LF	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
50	LF	1 in. liquid tight, flexible, non-metallic conduit for loop detector sleeve.
1600	LF	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
325	LF	2-conductor electrical cable (No. 14 A.W.G.).
475	LF	3-conductor electrical cable (No. 14 A.W.G.).
75	LF	5-conductor electrical cable (No. 14 A.W.G.)
300	LF	7-conductor electrical cable (No. 14 A.W.G.).
4	EA	Relocate existing traffic signal head - span wire mount.
10.5	SF	Relocate existing sheet aluminum signing - overhead mount.
66	SF	Install sheet aluminum signing - overhead mount.
3	SF	Install sheet aluminum signing - pole mount.
2	EA	Install traffic signal head - span wire mount.
3	EA	Install pedestrian signal head - pole mount.
2	EA	Install pedestrian pushbutton.
1	EA	Loop detector splice.
LS	LS	Remove existing traffic signal equipment.



	1	2	3	4	5	6	7	8	9	10,11	12,13	
Phase 1 & 5	R ←G—	R ←G—	R	R ←G—	R ←G—	R	R	R	R →G—	DW	DW	
1 & 5 Change To Phase 1 & 6 or Phase 2 & 5												
Phase 1 & 6	G ←G—	G ←G—	G	R	R	R	R	R	R	DW	DW	
1 Change	G ←Y—	G ←Y—	G	R	R	R	R	R	R	DW	DW	
Phase 2 & 5	R	R	R	G ←G—	G ←G—	G	R	R	R →G	DW	DW	
5 Change	R	R	R	G ←Y—	G ←Y—	G	R	R	R →Y	DW	DW	
Phase 2 & 6	G	G	G	G	G	G	R	R	R	WK	DW	
Ped Clearance	G	G	G	G	G	G	R	R	R	FL/DW	DW	
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	DW	DW	
Phase 4	R	R	R	R	R	R	G	G	G	DW	DW	
4 Change	R	R	R	R	R	R	Y	Y	Y	DW	DW	
Phase Alt. 4	R	R	R	R	R	R	G	G	G	DW	WK	
Ped Clearance	R	R	R	R	R	R	G	G	G	DW	FL/DW	
Alt. 4 Change	R	R	R	R	R	R	Y	Y	Y	DW	DW	
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	DARK	DARK	

Phase Chart



Wiring Diagram

Ultimate Traffic Control Signal

Sheet 27 of 52

A/E GROUP, INC.
CONSULTING ENGINEERS • PLANNERS
11409 CRONHILL DRIVE
OWINGS MILLS, MD. 21117
(410) 363-1908
A/E JOB NO: 94-264

REVISIONS	APPROVALS
	CHIEF, SIGNAL DESIGN SECTION
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY

MDOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION SIGNAL # 15035515.55

DRAWN BY: J. Dirndorfer
DES. BY: J. Dirndorfer
CHK. BY: 11/2/95

MD 355 at Travis Avenue

COUNTY: MONTGOMERY

DATE: November 6, 1995
SCALE: N/A

F.A.P. NO. AC-NH-C-5113(10) C
S.H.A. NO. M 611-501-371

TS/STD. NO. 3555-GI

SHEET NO. ____ OF ____